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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,110	08/25/2003	Jochen Drager	016906-0286	9843

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WASHINGTON, DC 20007

EXAMINER

LORENCE, RICHARD M

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,110

Applicant(s)

DRAGER ET AL.

Examiner

Richard M. Lorence

Art Unit

3681



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/15/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is the first Office action on the merits of Application No. 10/647,110 filed on August 25, 2003. Claims 1-25 are currently pending.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to because of the following informalities:

In Figure 6c the lead line associated with reference character 31a has been omitted; and

In Figure 7a "17" should be - - 27 - -.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14, 17, 18, 21, 22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "the contact surface area" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claims 17, 18 and 21 recite the limitation "the control shaft" in lines 4, 3 and 2, respectively. There is insufficient antecedent basis for this limitation in the claims.

In claim 24, lines 2-3 the phrase "at least one appliance, as claimed in claim 1" is unclear since no appliance is set forth in claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-14, 16, 20, 24 and 25 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Kawada et al. '221 which discloses a fluid friction clutch 10 including the shaft 20, drive body 38, output body 12, clutch region 42, 44, reservoirs 54, 116, flow paths 124, 60, flow resistance element 62, and controllable device 92.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawada et al. '221 in view of Light '442. Kawada et al. does not show the coaxially mounted control shaft. Light suggests providing a fluid friction clutch with a control shaft 57 whereby the coupling can be controlled via an electromagnetic coil 59 in response to sensed conditions. It would have been obvious to one having ordinary skill in the art at

the time the invention was made to provide the device of Kawada et al. with such a control shaft in order to permit control of the valve 68 in response to conditions other than the ambient temperature, e.g. coolant temperature or engine speed.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawada et al. '221 in view of Blair '668. It is not clear whether the radial groove 43 of Kawada et al. which interrupt the projections defined by the circumferential grooves 42 are arranged at an angle. Blair shows a fluid friction clutch with such an angled groove 32 for the purpose of enhancing the circulation of the fluid (column 3, lines 40-52). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Kawada et al. with grooves configured in the manner suggested by Blair in order to realize the advantages associated therewith.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawada et al. '221 in view of Herrle et al. '594. Kawada et al. does not show the coaxially mounted control shaft. Herrle et al. suggests providing a fluid friction clutch with a control shaft 32 whereby the coupling can be controlled via an electromagnetic coil 10 in response to sensed conditions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device of Kawada et al. with such a control shaft in order to permit control of the valve 68 in response to conditions other than the ambient temperature, e.g. coolant temperature or engine speed. Note that Herrle et al. also shows the armature 29 and ring 34 as in claim 22.

Allowable Subject Matter

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.


Prior Art Citation

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of the prior art references cited by applicant in the Information Disclosure Statement filed on January 15, 2004 have been considered. The examiner further cites Sherman '095, Storz '599, Ono '805, Lutz '903 and Hotta et al. '760 (JP) each of which show fluid friction clutches.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard M. Lorence whose telephone number is (703) 308-3062. The examiner can normally be reached on Mondays through Fridays from 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (703) 308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Richard M. Lorence
Primary Examiner
Art Unit 3681

Lorence/rml